

**REMARKS**

Claims 15-29 are present in this application, of which claims 1-14 were previously cancelled. Claims 15 and 29 are the independent claims.

Favorable reconsideration of this application, in light of the following remarks, is respectfully requested.

**Claim Rejections - 35 U.S.C. § 103**

Claims 15-21 and 23-29 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 4,693,867 to Commarmot et al. ("the Commarmot reference") in view of U.S. Patent Application Publication No. 2002/0101310 to Jennings ("the Jennings reference"). Applicants respectfully traverse this rejection for the reasons discussed below.

Applicants respectfully submit that the Commarmot and the Jennings references, individually or in combination, fail to disclose, or even suggest, *inter alia*:

the vessel extending axially through the sleeve, **the cap securing the vessel to the sleeve while clamping the diaphragm for sealing the open upper end of the vessel**, the open upper end of the vessel being formed with a widening portion, the widening portion being received in a corresponding recess formed in an end plane of the sleeve, and the recess providing a seat for the widening portion in the open upper end of the vessel (*emphasis added*)

as recited in claim 15.

In particular, Applicants respectfully submit that the Commarmot reference does not disclose or suggest the feature of the cap securing the vessel to the sleeve while clamping the diaphragm for sealing of the open upper end of the vessel.

In the outstanding Final Office Action, the Examiner continues to base his rejections that the “**cover**” 90 of the Commarmot reference corresponds to a “cap,” which may secure the vessel to the sleeve while clamping....”<sup>1</sup> Applicants again respectfully disagree because the cover 90 cannot be secured to the vessel to the sleeve while clamping. The cover 90 only abuts the upper edge of the ring 88 as shown in solid lines in FIG. 14, or the raised position, as shown in broken lines and, thus, there is no “securement” of the vessel to the sleeve while clamping (*see col. 8, lines 37-46*). At most, the Commarmot reference only discloses a reaction vessel in a sleeve. Hence, the Commarmot reference fails to teach or suggest a cap (including the diaphragm) securing the vessel to the sleeve while clamping the diaphragm for sealing the upper end of the vessel.

In regard to the Jennings reference, it is respectfully submitted that the Jennings reference only teaches a conventional reaction vessel with a diaphragm clamped to the upper end by a cap (FIG. 14). As such, there is no “cap securing the vessel to the sleeve while clamping the diaphragm for sealing the upper end of the vessel,” as recited in claim 15.

Further, in response to the Examiner’s argument in the outstanding Final Office Action in “*Response to Arguments*,” the Examiner contends that:

[i]t is noted that “the cap securing ...while clamping” is functional language that is sufficiently broad to read on the cap securing the opening of the vessel by abutting the vessel. In the absence of positively clamping a clamp, the motion of the cap to seal the septum meets the claimed limitations.<sup>2</sup>

Applicants respectfully submit, however, that the language recited in claim 15 does further structurally limit the claimed apparatus. While it is true that intended

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<sup>1</sup> See Final Office Action mailed December 8, 2009, page 2, paragraph 2.

<sup>2</sup> See Final Office Action mailed December 8, 2009, page 6, paragraph 5.

use of an apparatus does not distinguish over prior art references, **functional limitations** such as the language used in claim 15 is distinguishable over the prior art. See MPEP 2173.05(g), which states:

There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper.

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.

Accordingly, Applicants respectfully submit that the language used in claim 15 is a functional limitation that does imply structure and must be evaluated and considered just like any other limitation of the claims. For instance, during the securement of the cap to the sleeve while clamping, the diaphragm, clamped by the cap to accommodate the rim and sealing of the open end of the vessel, may firmly locate the upper end of the vessel in the end plane of the sleeve. Moreover, as shown in FIG. 5, the rim of the vessel may have an inner wall or inner perimeter that extends transversely to the diaphragm. This measure may be conceived to provide a constant load area in the lower side of the diaphragm that may be exposed to pressures generated from a reaction in the vessel and to ensure comparative pressure detection results (*see page 7, lines 7-16 in the instant disclosure*). Accordingly, during clamping of the diaphragm for sealing the upper end of the vessel, the cap and the diaphragm secure the vessel to the sleeve.

Moreover, “[**all words in a claim**] must be considered in judging patentability of that claim against the prior art” (*emphasis added*), citing *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

Since the rejection fails to disclose or suggest each and every element of the rejected claims, Applicants respectfully submit that no *prima facie* case of obviousness has been established with respect to claim 15.

Moreover, in response Examiner's argument in the outstanding Final Office Action in "*Response to Arguments*," the Examiner also contends that:

[i]t is noted that the sealing **diaphragm of Jennings** is provided with an outlet that does not keep the fumes locked inside and furthermore attains the desirable feature of sealing the vessel so that the pressure inside the vessel is controlled and avoids losing vapors to the cap/vessel interface.<sup>3</sup> (*emphasis added*)

Applicants respectfully submit, however, that the arguments made in the July 28, 2009 Response was directed to ***the Commarmot reference***, and not the Jennings reference, as alleged by the Examiner in the Final Office Action. In other words, Applicants argued in the previously-filed Response that one of ordinary skill in the art would not incorporate a diaphragm into the apparatus of Commarmot (as allegedly proposed by the Examiner in applying the §103 rejection) because such a diaphragm would keep fumes/vapors locked inside the reaction vessel, and the suction unit would not be able to remove the fumes/vapors through the cover 90 as required. Therefore, the Examiner's statement above is in error.

Further, in response the Examiner's argument in paragraph 8 in "*Response to Arguments*" section, Applicants continually submit that the proposed combination of references fails to demonstrate why one of ordinary skill in the art would have combined the teachings of the Commarmot and the Jennings references in the manner used to reject the claims.

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<sup>3</sup> See Final Office Action mailed December 8, 2009, page 7, paragraph 7.

Specifically, Applicants respectfully submit that the mere disclosure of including a diaphragm into the apparatus of Commarmot is insufficient to establish a motivation to combine. In particular, Applicants note that the relevant inquiry is not whether the Jennings reference teaches a diaphragm, but rather whether one of ordinary skill in the art would ***desire*** to combine the Jennings and the Commarmot references in order to arrive at the claimed invention. See, e.g., MPEP 2143.01(III), which states “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination,” citing In re Mills.<sup>4</sup> That is, establishing motivation requires the Examiner to demonstrate why one of ordinary skill in the art, absent the teachings of Applicants’ application, would want to include the diaphragm of the Jennings reference into the apparatus of the Commarmot reference. Thus, Applicants respectfully submit that the outstanding Final Office Action has failed to provide an objective teaching that demonstrates why one of ordinary skill in the art would be motivated to combine and/or modify the teachings of the Commarmot and the Jennings references.

That is, the Commarmot reference discloses only a cover 90 in abutment on the upper edge of ring 88 including a tube 95 in permanent relation with a supple pipe leading to a pumping and suction unit (see col. 8, lines 40-50). The pumping and suction unit is started up in synchronized manner for the time necessary for ensuring removal of the fumes and vapors released by the reaction (col. 10, line 35-42). Accordingly, it follows that there cannot be any diaphragm in the apparatus according to Commarmot because a diaphragm would keep such fumes/vapors in the reaction vessel and the suction unit would not be able to remove the fumes/vapors.

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<sup>4</sup> 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In view of the above, Applicants respectfully submit that one of ordinary skill in the art would not have combined the teachings of the Commarmot and the Jennings references in the manner used to reject the claims, and that the proposed combination of the Commarmot and the Jennings references fails to teach or suggest all of the elements of claim 15. Thus, no *prima facie* case of obviousness has been established. Accordingly, claim 15 is allowable over the Commarmot and the Jennings references. Dependent claims 16-21 and 23-28 depend from claim 15 and are allowable for at least the reasons that claim 15 is allowable.

Claim 29 is also allowable for at least the similar reasons as discussed above regarding claim 15. In particular, claim 29 recites, *inter alia*, "the cap secures the vessel to the sleeve and clamps the diaphragm for sealing the open upper end of the vessel."

Therefore, Applicants respectfully request that the rejection of claims 15-21 and 23-29 under 35 U.S.C. § 103(a) be favorable reconsidered and withdrawn.

Claim 22 is rejected under 35 U.S.C. § 103 as being unpatentable over Commarmot in view of Bennett et al. (U.S. Patent 5,520,886). Applicants respectfully traverse this rejection for the reasons discussed below.

As discussed above, Applicants submit that independent claim 15 is patentable over Commarmot. Further, Applicants submit that Bennett does not remedy the deficiencies of Commarmot.

For example, FIG. 1 of Bennett merely discloses a container 13 with a skirt 31 which reduces dangerous explosions by allowing a more gradual failure of the container 13, see, *e.g.*, column 3, lines 43-47 of Bennett.

Thus, Applicants respectfully submit that dependent claim 22 depends from independent claim 15, and is allowable for the reasons stated above with respect to claim 15 as well as for their own merits. Accordingly, Applicants respectfully request that the rejection be reconsidered and withdrawn.

### **CONCLUSION**

In view of the above remarks and amendments, Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. Further, the above remarks demonstrate the failings of the outstanding rejections, and are sufficient to overcome the rejections. However, these remarks are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied prior art. Accordingly, Applicants do not contend that the claims are patentable solely on the basis of the particular claim elements discussed above.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

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